



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. **VA0059145**
Effective Date: **TBD**
Expiration Date: **TBD**

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, Part I – Effluent Limitations and Monitoring Requirements, Part II – Conditions Applicable To All VPDES Permits and Part III – Stormwater Management, as set forth herein.

Owner Name: Jefferson Home Builders
Facility Name: Culpeper Wood Preservers
County: Culpeper
Facility Location: 15487 Braggs Corner Road, Culpeper, VA 22701

The owner is authorized to discharge to the following receiving stream:

Stream Name: Jonas Run, UT
River Basin: Rappahannock River
River Subbasin: Rappahannock River
Section: 4
Class: III
Special Standards: None

Thomas A. Faha
Director, Northern Regional Office
Department of Environmental Quality

Date

A. Effluent Limitations and Monitoring Requirements**1. Outfall 001 – Stormwater Flow from Lumber Storage**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 001. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> ⁽¹⁾	<u>Weekly Average</u> ⁽¹⁾	<u>Minimum</u>	<u>Maximum</u> ⁽¹⁾	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD)	NL	NA	NA	NL	1/3M ⁽²⁾	Estimate
pH (S.U.)	NA	NA	NL	NL	1/3M ⁽²⁾	Grab
Hardness, Total (mg/L as CaCO ₃)	NA	NA	NA	NL	1/3M ^(2, 5)	Grab
Dissolved Copper (µg/L)	NA	NA	NA	NL	1/3M ^(2, 3, 4, 5, 8)	Grab
Chromium VI (µg/L)	NA	NA	NA	NL	1/3M ^(2, 3, 4, 5, 8)	Grab
Dissolved Arsenic (µg/L)	NA	NA	NA	NL	1/3M ^(2, 3, 4, 5, 8)	Grab
Total Kjeldahl Nitrogen, TKN (mg/L)	NA	NA	NA	NL	1/6M ^(4, 6)	Grab
Nitrate+Nitrite, as N (mg/L)	NA	NA	NA	NL	1/6M ⁽⁶⁾	Grab
Ammonia (mg/L)	NA	NA	NA	NL	1/6M ^(4, 6)	Grab
Total Nitrogen (mg/L)	NA	NA	NA	NL	1/6M ^(6, 7, 8)	Calculated
Total Phosphorus (mg/L)	NA	NA	NA	NL	1/6M ^(6, 8)	Grab
Total Suspended Solids (mg/L)	NA	NA	NA	NL	1/3M ^(2, 4, 9)	Grab
Acute Toxicity – <i>C. dubia</i> (%)	NA	NA	NA	NL	1/3M ^(2, 10)	Grab
Acute Toxicity – <i>P. promelas</i> (%)	NA	NA	NA	NL	1/3M ^(2, 10)	Grab

⁽¹⁾ See Part I.B.

⁽²⁾ The quarterly monitoring periods shall be January through March, April through June, July through September, and October through December. The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

⁽³⁾ The following action levels are applicable: Dissolved Copper 13.6 µg/L; Chromium VI 32 µg/L; Dissolved Arsenic 680 µg/L. See Part III.A and Part III.B for details regarding action levels and associated requirements.

⁽⁴⁾ The following quantification levels are applicable: TSS 1.0 mg/L; TKN 0.50 mg/L; Ammonia 0.2 mg/L; Dissolved Copper 2.7 µg/L; Chromium VI 6.4 µg/L; Dissolved Arsenic 90 µg/L.

⁽⁵⁾ Dissolved Copper, Chromium VI, Dissolved Arsenic, toxicity, and total hardness monitoring shall be conducted concurrently.

⁽⁶⁾ The semiannual monitoring periods shall be January through June and July through December. The DMR shall be submitted no later than the 10th day of the month following the monitoring period.

⁽⁷⁾ Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO₂+NO₃ Nitrogen and shall be calculated from the results of those tests.

⁽⁸⁾ See Part III of this permit for further reporting requirements.

⁽⁹⁾ TSS shall be expressed as two significant figures.

⁽¹⁰⁾ See Part I.C of this permit for Whole Effluent Toxicity (WET) testing requirements.

MGD = Million gallons per day.

NL = No limit; monitor and report.

NA = Not applicable.

S.U. = Standard units.

1/3M = Once every three months.

1/6M = Once every six months.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

A. Effluent Limitations and Monitoring Requirements**2. Groundwater Monitoring**

During the period beginning with the permit effective date and lasting until the groundwater monitoring at this location is administered by the EPA Superfund Program or until the permit expiration date, groundwater monitoring shall be conducted at MW-1S, MW-1I, MW-1D, MW-3S, MW-3I, MW-3D, MW-5S, MW-5I, MW-5D, MW-6S, MW-6I, and MW-6D.

Parameter	Monitoring Requirements		
	<u>Limitation</u>	<u>Frequency</u>	<u>Sample Type</u>
Static Water Level (ft./in.) (Measured to the Nearest 0.01 ft.)	NL	1/YR	Measured
pH (S.U.)	NL	1/YR	Grab
Conductivity (μ mhos/cm)	NL	1/YR	Grab
Total Arsenic (μ g/L)	NL	1/YR	Grab
Chromium VI (μ g/L)	NL	1/YR	Grab
Total Copper (μ g/L)	NL	1/YR	Grab

Static Water Level = The static water level shall be measured prior to bailing the well water for sampling. At least three volumes of groundwater shall be withdrawn immediately prior to sampling each monitoring well.

NL = No limit; monitor and report.

S.U = Standard Units.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

B. Quantification Levels and Compliance Reporting**1. Quantification Levels**

- a. The quantification levels (QL) shall be less than or equal to the following concentrations:

<u>Characteristic</u>	<u>Quantification Level</u>
Dissolved Arsenic	90 µg/L
Chromium VI	6.4 µg/L
Dissolved Copper	2.7 µg/L
TSS	1.0 mg/L
Ammonia	0.2 mg/L

- b. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained. The permittee shall use any method in accordance with Part II A of this permit.

2. Compliance Reporting for parameters in Part I.A

- a. Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.B.1.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise, use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.
- b. Daily Maximum - Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.B.1.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis, then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum is <QL, then report "<QL" for the quantity. Otherwise, use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.
- c. Single Datum - Any single datum required shall be reported as "<QL" if it is less than the QL used in the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above). Otherwise, the numerical value shall be reported.

- d. Significant Digits - The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.
- e. For total phosphorus (TP), all daily concentration data below the quantification level (QL) for the analytical method used should be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported.
- f. For total nitrogen (TN), if none of the daily concentration data for the respective species (i.e. TKN, Nitrates/Nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point is reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

C. Whole Effluent Toxicity Program Requirements

1. Biological Monitoring

- a. In accordance with the schedule in Part I.C.2 below, the permittee shall conduct quarterly acute toxicity tests for the duration of the permit. The permittee shall collect grab samples of the effluent at Outfall 001.

The acute tests to use are:

48-Hour Static Acute Test using *Ceriodaphnia dubia*

48-Hour Static Acute Test using *Pimephales promelas*

These single dilution acute tests are to be conducted using a minimum of 4 replicates, with 5 organisms each, for the control and 100% effluent. The No Observed Adverse Effect Concentration (NOAEC) shall be reported as either equal to 100% (= 100%) or less than 100% (< 100%). The effluent will be in compliance if the survival of the test organisms in both the control and 100% effluent exposures equals or exceeds 90%. If the survival in the effluent is less than 90% and this value is significantly different from the control survival, as determined by hypothesis testing, the NOAEC is less than 100% and the effluent is not in compliance. Tests in which control survival is less than 90% are not acceptable.

- b. In the event that sampling, as set forth in Part I.C.2. below, is not possible due to the absence of effluent flow during a specific testing period, the permittee shall provide written notification with the Discharge Monitoring Report (DMR) submitted for the month following the period in which the toxicity tests were to have been conducted. Failure to collect a discharge that occurs during the beginning of any quarterly test period and no other flow event occurs for the remainder of the same quarter shall be deemed a violation of this permit.
- c. The permittee may provide additional samples to address data variability. These data shall be reported. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3
- d. The test data will be evaluated statistically for reasonable potential to cause or contribute to an instream excursion of water quality criteria, including narrative, at the conclusion of the test period. The data may

be evaluated sooner if requested by the permittee or if toxicity has been noted. Should evaluation of the data indicate that a limit is warranted, a WET limit and compliance schedule will be required.

- e. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limitations must control the toxicity of the effluent.
- f. Should the permittee conduct toxicity testing of the effluent prior to the compliance date listed in the schedule in Part I.C.2. below, the results of the test and the test report shall be reported with the DMR for the month following the receipt of the testing results. In no case shall this exceed 45 days from the receipt of the test results.

2. Reporting Schedule

The permittee shall monitor during the periods specified; shall report the results on the DMR; and shall supply one copy of the toxicity test report specified in this WET Program:

Period	Sampling Period	DMR/Report Submission Dates
Quarter 1	October 1, 2016 – December 31, 2016	January 10, 2017
Quarter 2	January 1, 2017 – March 31, 2017	April 10, 2017
Quarter 3	April 1, 2017 – June 30, 2017	July 10, 2017
Quarter 4	July 1, 2017 – September 30, 2017	October 10, 2017
Quarter 5	October 1, 2017 – December 31, 2017	January 10, 2018
Quarter 6	January 1, 2018 – March 31, 2018	April 10, 2018
Quarter 7	April 1, 2018 – June 30, 2018	July 10, 2018
Quarter 8	July 1, 2018 – September 30, 2018	October 10, 2018
Quarter 9	October 1, 2018 – December 31, 2018	January 10, 2019
Quarter 10	January 1, 2019 – March 31, 2019	April 10, 2019
Quarter 11	April 1, 2019 – June 30, 2019	July 10, 2019
Quarter 12	July 1, 2019 – September 30, 2019	October 10, 2019
Quarter 13	October 1, 2019 – December 31, 2019	January 10, 2020
Quarter 14	January 1, 2020 – March 31, 2020	April 10, 2020
Quarter 15	April 1, 2020 – June 30, 2020	July 10, 2020
Quarter 16	July 1, 2020 – September 30, 2020	October 10, 2020
Quarter 17	October 1, 2020 – December 31, 2020	January 10, 2021
Quarter 18	January 1, 2021 – March 31, 2021	April 10, 2021
Quarter 19	April 1, 2021 – June 30, 2021	July 10, 2021

D. Other Requirements and Special Conditions

1. Operation and Maintenance (O&M) Manual Requirement

In accordance with the Virginia Pollutant Discharge Elimination System Regulations at 9VAC25-31, the permittee shall submit a revised O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) reflecting current facility operations within 90 days of the permit effective date.

The O&M Manual and subsequent revisions shall include the manual effective date and meet Parts II.K.2 and II.K.4 Signatory Requirements of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ-NRO for review and approval.

The O&M Manual shall detail the practices and procedures to be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of stormwater samples;
- b. Procedures for measuring and recording the duration and volume of stormwater discharged;
- c. Discussion of Best Management Practices;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.D.3 that will prevent these materials from reaching state waters. List type and quantity of wastes, fluids, and pollutants (e.g. chemicals) stored at this facility;
- e. Discussion of facility design, operation, routine preventative maintenance, critical spare parts inventory, and record keeping;
- f. List of facility, local and state emergency contacts; and
- g. Procedures for reporting and responding to any spills and/or overflows.

2. Notification Levels

The permittee shall notify the Department as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - 1) One hundred micrograms per liter;
 - 2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
 - 3) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - 4) The level established by the Board.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant, which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

- 1) Five hundred micrograms per liter;
 - 2) One milligram per liter for antimony;
 - 3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - 4) The level established by the Board.
3. Materials Handling/Storage
Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner and consistent with Best Management Practices, so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.
4. Water Quality Criteria Reopener
Should effluent monitoring indicate the need for any water quality-based limitations, this permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations.
5. Chemical Treatment
The permittee shall notify the DEQ Northern Regional Office 90 days prior to use of any new wood treatment chemicals. Upon notification, the Regional Office shall determine if this activity warrants a modification of the permit.
6. Handling and Storage of Treated Lumber
- a. Treated lumber stored under roof shall be retained on the drip pad for at least 12 hours after treatment or until it there is no visible drippage. Treated lumber that is to be stored uncovered shall be retained on the drip pad after treatment for at least 48 hours to ensure there is no visible drippage before it is removed from the drip pad and stored uncovered.
 - b. Within one year of the effective date of this permit, the permittee shall prepare and submit for approval a treated lumber management plan that will serve to prevent or reduce, to the extent practicable, the contact of exposed treated lumber with precipitation. This plan shall document available covered and uncovered lumber storage areas. Additionally the plan is to include average lumber residence times in the following locations: raw lumber storage, treatment and retention on the drip pad, and treated lumber storage. Once approved, this treated lumber management plan shall be incorporated into the O&M Manual and become an enforceable condition of this permit.
 - c. A log summary that includes the process used to treat the wood (including volumes of chemicals used), the quantity of treated lumber stored, the storage duration, and the storage location shall be included in the plan. The log summary shall be retained on site for the duration of the permit term.
7. Process Wastewater Pollutants
There shall be no discharge of process wastewater pollutants. The term "process wastewater" specifically excludes material storage yard runoff (either raw material or processed wood storage).
8. Holding Pond Discharge. Discharge from this holding pond, the drip pads, and the sumps is not permitted except in the event of a 25-year, 24-hour storm event. When a discharge that enters state waters does occur, an oral report shall be provided to DEQ within 24 hours of the discharge event. Written record of notification, to include any monitoring results, shall be submitted to DEQ-NRO with the DMR due on the tenth of the following month of the discharge.

9. Holding Pond Liner Study

Within 90 days of the permit reissuance date, the permittee shall submit to DEQ-NRO for review and approval a Holding Pond Liner Study designed to evaluate the integrity of the holding pond liner that includes a plan and study schedule. If the results of the Holding Pond Liner Study indicate leakage from the facility's holding pond is occurring, the permittee shall submit a Corrective Action Plan within 60 days of being notified by DEQ-NRO. The Corrective Action Plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or contained to ensure that any possible seepage from the holding pond to state waters does not occur. Based on the extent of the contamination found to be present, a risk analysis may be required. Once approved, this Corrective Action Plan shall become an enforceable part of this permit.

10. Freeboard Requirements

The holding pond shall maintain a minimum of two feet of freeboard at all times except during a 25-year, 24-hour storm.

11. Berm Maintenance

The holding pond berm shall be properly maintained through mowing, prohibiting tree and shrub establishment, and removing burrowing animals.

12. Groundwater Monitoring

Groundwater monitoring at this site shall be conducted in accordance with Part I.A.2 of this permit and the approved Groundwater Monitoring Plan. Monitoring results shall be reported to DEQ with the electronic DMR due on the tenth of January of each year until permission is granted to the permittee from DEQ to transfer the groundwater monitoring and reporting to the EPA's Superfund Program.

13. Closure Plan

Facility closure shall be conducted in accordance with the Closure Plan on file. All closure shall be coordinated with the DEQ Water Program Division, the DEQ Waste Division, and the EPA Superfund Program. Any changes in the practices and procedures for facility closure shall be documented in the Closure Plan within 90 days of the effective date of the changes

14. Total Maximum Daily Load (TMDL) Reopener

This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements.